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PATTERNS OF APPROVAL IN WORK GROUPS:

TREATING THE SEXES EQUALLY

by

Kirsten Hinsdale J. David Johnson



VALIDATED INSTRUCTION ASSOCIATES Box 386 Albion, Michigan 49224



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Patterns of Approval in Work Groups: Treating the Sexes Equally

Kirsten Hinsdale
J. David Johnson

Validated Instruction Associates, Inc.
Albion, Michigan 49224

ONR Technical Report #5
December, 1978

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This research was sponsored by the Organizational Effectiveness Research Programs, Office of Naval Research (Code 452), under Contract #N00014-77-C-0625.

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UNCLASSIFIED SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered) READ INSTRUCTIONS BEFORE COMPLETING FORM REPORT DOCUMENTATION PAGE I. REPORT NUMBER 2. GOVT ACCESSION NO. 3. RECIPIENT'S CATALOG NUMBER ONR Technical Report #5 4. TITLE (and Subtitle) Interim Technical Report PATTERNS OF APPROVAL IN WORK GROUPS: 1 Nov 1993--31 Dece Treating the Sexes Equally, 6. PERFORMING ORG. REPORT NUMBER . AUTHOR(a) . CONTRACT OR GRANT NUMBER(s) Kirsten /Hinsdale NØØØ14-77-C-Ø625 J. David/Johnson 9. PERFORMING ORGANIZATION NAME AND ADDRESS O. PROGRAM ELEMENT, PROJECT, TASK Validated Instruction Associates. Inc. P. O. Box 386 NR 170-858/10-14-77 Albion, Michigan 49224 11. CONTROLLING OFFICE NAME AND ADDRESS Organizational Effectiveness Programs 13. NUMBER OF PAGES Office of Naval Research (Code 452) Arlington, Virginia 22217
14. MONITORING AGENCY NAME & ADDRESS/II different from Controlling Office) 18. SECURITY CLASS. (of this report) Unclassified ISA DECLASSIFICATION/DOWNGRADING 16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Affirmative action Sexism Women Sex differences Work groups Femininity Sex roles Inter-group relations Stereotypes Masculinity CAThis study 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The purpose of this study was to investigated patterns of approval and disapproval for stereotypically feminine and masculine behavior in work groups. Accordingly, a sample of 216 male and female Navy enlisted personnel were given a series of behavioral contingency statements illustrating the masculine and feminine traits on the Bem Sex Role Inventory. Subjects were asked to complete the statements by rating the extent to which they would encourage or discourage each behavior in -> over

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male co-worker, or female co-worker. It was found that approval patterns did not vary according to the sex of the worker. However, significant effects were observed with respect to the sex of respondent and the status of the worker as a subordinate or co-worker. Specifically, female respondents were more likely than male respondents to encourage feminine behaviors, and co-workers were more likely than subordinates to receive encouraging responses to feminine behaviors. No significant differences were found on these variables for masculine behavior. Overally it is concluded that sex-specific patterns of approval are not apparent in the Navy system; on the contrary, there is a small tendency to encourage a given behavior more strongly when it is cross-sex. These findings are interpreted in terms of their consistency with previous research on Navy populations.

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Preface

This study is the fifth in a series of investigations sponsored by the Office of Naval Research and designed to determine the validity of the Hinsdale-VIA Psychosocial Model of Defeat (Hinsdale, Note 1). The model describes in behavioral terms how the stereotypic attitudes of work group members interact with women's already strong identification with the female sex role to produce a "cycle of defeat." This cycle is thought initially to limit women's behavioral repertoires, and ultimately, their salience in the working world. As a spinoff effect, the cycle also is believed to reinforce the stereotypic attitudes of work group members.

To date we have concentrated our research efforts in the attitudinal realm, testing the basic assumptions on which the model is predicated. Initially, we directed our attention toward examining the sex stereotypes on which the behavior of work group members toward women might be based, the extent to which these stereotypes are accurate or inaccurate, and the extent to which they are evident to work group members (Hinsdale & Johnson, 1978a, 1978c, 1978d). To put the cycle of defeat in its proper perspective, we also investigated the relative adaptiveness of the feminine and masculine sex roles in the working world (Hinsdale & Johnson, 1978b).

In this unit of research, we have moved from studies of attitudes to studies of behavior, thereby initiating direct research on the model itself. Accordingly, the purpose of this study was to investigate the first supposition of the cycle of defeat—that women and men are differentially rewarded by their peers and superiors for displaying stereotypically masculine and feminine behavior.

Contents

Introduction
Method 8
Instrument Design 8
Sample
Procedure
Results11
Discussion
Reference Notes
References
Tables
Distribution List

Sex bias in the selection, promotion, and development of working women is overt, easily measured, and well-documented (Terborg & Ilgen, 1975; Rosen & Jerdee, 1974; U.S. Department of Labor, 1975). It also is illegal. As a result, most major American employers have made substantial investments in programs to remedy imbalances in the numbers of women in technical, professional, and managerial positions.

But meeting legal requirements addresses only part of the problem—that part known as "access discrimination." Much more difficult to deal with is "treatment discrimination," or the subtle interpersonal behaviors which, quite apart from more blatant biases, may exert pressure on the working woman to remain within the confines of sex-appropriate behavior. For example, the woman who risks losing friendship and support as she rises up through the ranks is likely to think twice about her career ambitions (Miller, Labowitz, & Fry, 1975). So is the woman who risks being labelled "unfeminine" for her efforts (Tangri, 1972; Hinsdale, Cook, & Johnson, Note 2). Because of these and other pressures, many women seem to be discouraged from pursuing their full potential in the

This research was supported by the Office of Naval Research (Code 452), under Contract No. NOO014-77-C-0625.

Appreciation is expressed to Robert Hayles, our contract monitor, for his theoretical guidance, and to James W. Cook, for his painstaking editing of the manuscript.

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workplace even when the path is officially clear, the organizational climate may be clouded with stereotypes. And because stereotypes are thought to underlie most treatment discrimination, they often are cited as the most severe single barrier to occupational achievement in women (Bem & Bem, 1970; Orth & Jacobs, 1971; Terborg & Ilgen, 1975).

However, our research has thus far produced no data to support the existence of stereotypic belief systems at the organizational level. In keeping with studies which show a popular movement toward egalitarianism (Mason, Czajka, & Arber, 1976; Tavris, 1977), our findings indicate that both the "ideal" working woman and man and the "real" working woman and man are described almost identically by workers of both sexes (Hinsdale & Johnson, 1978a). This nonsexist set of beliefs, moreover, filters down to the work group level. Working women and men perceive virtually no differences in the sex-role expectations of their immediate peers and superiors (Hinsdale & Johnson, 1978d). On the surface, then, stereotypic beliefs fail to approach the scope and severity one might predict in working populations.

Still, some sexist nuances can be observed in our data at the finest levels of analysis. For example, male workers find such qualities as aggression, dominance, and independence less desirable in women than in men (Hinsdale & Johnson, 1978a). Men are preferred as co-workers, and the masculine female, though valued by superiors, is devalued by peers (Hinsdale & Johnson, 1978b). Finally, many of the traits ascribed to women-e.g., being shy, quiet, and emotional--are inaccurate (Hinsdale & Johnson, 1978c).

These small biases suggest that the overall egalitarianism evident in our initial research may be little more than an attitudinal smokescreen concealing a behavioral problem. Given that whatever prejudice exists is likely to result in discriminatory behavior (Garland & Price, 1977; Ilgen & Terborg, 1975; Triandis & Davis, 1965; Weitz, 1972), it is entirely possible that sexist behavior—if not sexist ideology—is alive and doing reasonably well in the workplace. As other researchers (e.g., Deaux, 1976; O'Leary, 1977) have pointed out, this rift between belief and behavior may be simply a result of the fact that endorsing traditional prejudices against women is no longer a socially desirable response, and there is little incentive to admit one's biases. If this is the case, our findings in the attitudinal realm may be exponentially amplified in studies of behavior.

This expectation is not without precedent in the research. For instance, Tavris (1973) has demonstrated a credibility gap between men's liberated beliefs and not-so-liberated behavior; men who subscribe to equality for the sexes nevertheless are reluctant to share mundane household duties—certainly a prerequisite for women's equality in the economic sphere. Similarly, it has been shown that even though competent and hard-driving women are greatly admired and even idealized (Hinsdale & Johnson, 1978a; O'Leary & Depner, 1975), men don't want them as wives (Komarovsky, 1973), and neither sex seems particularly enthusiastic about working with them—both women and men tend to exclude competent women from their work groups (Hagen & Kahn, 1975). Additional research has demonstrated that competent females are viewed as less attractive than their incompetent

counterparts (Spence & Helmreich, 1972), and that they experience increased social isolation, increased work strain, and decreased job satisfaction as they advance occupationally--presumably as a result of men's vested interests in the face of competition from women (Miller, Labowitz, & Fry, 1975).

Implicit in these studies is a new societal message: the competent woman is wonderful--from a distance. Although both sexes are willing to pay lip service to her achievements in the masculine domain, both also discriminate against her behaviorally. And much of this discrimination seems levelled at undermining the "primary" role into which women are socialized--that of an expressive, affiliative being (Darley, 1976).

What these studies mean for the career-oriented woman may be particularly harmful: in striving to achieve a widely endorsed ideal, she may incur many immediate negative social consequences. At the very least, one might expect this mixed message to generate some confusion: many women may be caught between the nonsexist beliefs and sexist behaviors of their peers and superiors.

This problem, however, may not apply exclusively to women. Interestingly, there is evidence to suggest that the same may be true for men, but in reverse: men may incur negative consequences for displaying traditionally feminine qualities (Condry & Dyer, 1976). At first glance, this may seem relatively innocuous—what difference does it make to men or their careers if they must suppress femininity on-the-job?

According to our research, it may make a great deal of difference.

In the past, it generally has been assumed that because only masculinity

is related to success in the working world, only women are handicapped by pressures to conform to conventional sex roles. However, contrary to popular belief, many feminine traits are highly adaptive in the working world—i.e., directly tied to general success, adjustment, and level of attainment. Our data show that while masculinity is generally superior to femininity in terms of these variables, androgyny—or the coexistence of feminine and masculine qualities in the same personality—has a slight edge over masculinity. Moreover, of the 20 traits which most strongly contribute to career advancement, seven are traditionally feminine (Hinsdale & Johnson, 1978b). Among them are "warm," "understanding," and "compassionate," which seemingly temper such adaptive masculine qualities as "competitive," "ambitious," "independent," and "willing to take a stand." From these findings we have concluded that the "masculine androgyn" has replaced the exclusively masculine personality as the template for success in the working world.

Other studies suggest that besides being adaptive for individual workers, traditionally feminine qualities may be good for organizations. For example, Bond and Vinacke (1961) have shown that in tasks requiring cooperation for success, women's accommodative strategies are more effective than men's exploitative strategies. In addition, such feminine skills as "providing consideration," "intimacy," and "peer support" each have been positively related to worker satisfaction (Petty & Lee, 1975; Rousell, 1974; Durning and Mumford, Note 3). Similarly, Stogdill (1974) has concluded that "followers tend to be better satisfied under a leader skilled in human relations rather than under one skilled in the group

task" (p. 419). He based this conclusion on an extensive review of studies demonstrating that people-oriented behaviors, as opposed to work-oriented behaviors, are consistently related to group cohesiveness and follower satisfaction.

Given the adaptiveness of certain aspects of the feminine sex role, it seems possible that men, like women, may be victimized by pressures to avoid displaying cross-sex competencies. That these pressures exist is becoming increasingly apparent. For example, Rosen & Jerdee (1975) found that men are more harshly judged when they take time off for home responsibilities, and Bartol & Butterfield (1976) demonstrated that men are viewed as less effective than women in using feminine "consideration behaviors." Our research, moreover, has shown that certain feminine characteristics are more damaging to career achievement in men than in women, and that supervisors find a lesser degree of femininity appropriate to men than men themselves report as self-descriptive (Hinsdale & Johnson, 1978b, 1978d).

In short, sexism is a two-way street. And because an androgynous mix of attributes is crucial to career advancement, it follows that sexism may be directly detrimental to career achievement in men as well as women. Thus, if they translate into discriminatory behaviors in work groups, the many subtle prejudices evident in our prior data may make the masculine androgyn a difficult ideal for either sex to achieve.

The purpose of the present study was to determine if these prejudices are in fact expressed in the behavior of work group members. For example, co-workers may respond more positively to a male who attempts to give

orders than to a female who does the same; or supervisors may react more positively to a female subordinate who attempts to comfort a disappointed colleague. In other words, the same behaviors in women and men may activate entirely different patterns of approval in work group members. Since the approval of peers and superiors is known to affect directly both an employee's self-concept and on-the-job behavior (Korman, 1970), it might very well compel men and women alike to avoid the acquisition of highly adaptive cross-sex behaviors.

In addition to general patterns of approval, four "shaping situations" were selected for study, including encouraging responses to masculine behavior (ME), discouraging responses to masculine behavior (MD), encouraging responses to feminine behavior (FE), and discouraging responses to feminine behavior (FD). It was hypothesized that working men are more likely than working women to receive encouraging responses for traditionally masculine behaviors. Conversely, it was hypothesized that working women are more likely than men to receive encouraging responses for traditionally feminine behaviors.

Method

Instrument Design

A two-step procedure was employed in the design of the study instrument. In the first step, a sample of 26 female and 24 male Navy enlisted personnel from the Orlando, Florida Recruit Training Command were interviewed. Their paygrades ranges from E-1 through E-4.

The purpose of the interviews was to obtain work-related examples of feminine and masculine behavior. These were defined as behaviors consistent

with the sex-typed traits on the Bem Sex Role Inventory (BSRI, Bem, 1974), with two exceptions: the traits "feminine" and "masculine" were eliminated since they seem to do little more than identify the sex of the respondent (Waters, Waters, & Pincus, 1977; Gadreau, Note 4). The 38 remaining traits on the BSRI were divided into two lists of 19 traits, each containing approximately equal numbers of feminine and masculine items. These lists were administered individually to equal numbers of male and female subjects. Within sex, the administration of the two lists was random.

For each trait on the lists, interviewers first elicited and transcribed verbatim behaviors, then asked subjects to rate how their peers and supervisors respond to each behavior, using a 3-point scale ranging from "1 = encourage" to "3 = discourage." (These data on supervisory and peer responses were gathered for use in the design of subsequent instruments.) This first step in the development of the study instrument generated over 600 examples of sex-typed behavior.

In the second step, lists of the behaviors associated with the 38 BSRI traits were compiled. These lists were administered to 16 female and 14 male students from Albion College, Albion, Michigan. The mean age of the students was 18.9 years. Subjects were convened in a class-room setting, instructed to review each list thoroughly, and asked to select the behavior they deemed most representative of a given trait.

This second step produced frequency distributions from which the most representative behavior for each of the 38 traits was identified.

Prior to final instrument design, these behaviors were edited for clarity,

tense, and universal applicability to Navy work groups. They then were used in the design of a series of "contingency," or "if/then" statements (e.g., "how would you react if..."). Four versions of the contingency statements were developed, depicting a male subordinate (form 1), a female subordinate (form 2), a male co-worker (form 3), and a female co-worker (form 4). The instruments began with the following instructions:

"Below is a list of 38 behaviors. For each one, please imagine you have just observed a male (female) subordinate (co-worker) performing that behavior. Next, choose the number from the following scale which best describes how you would react, from '1 = strongly encourage' to '7 = strongly discourage.' Enter this number in the blank next to the behavior."

A representative sample of the behaviors used in the instruments and the associated BSRI traits are shown in Table 1.

Sample

Subjects included 112 male and 104 female Navy enlisted personnel from NAS Memphis. Their paygrades ranged from E-1 through E-9, with a mode of E-3. They had served in the Navy a median of .83 years. 95.8% had completed high school, 38.9% had had some college, and 8.4% had a college degree. Approximately one-tenth of the subjects (11.6%) were nonwhite. Most of them were single (62.8%); approximately one-third were married (30.2%); and the remainder (7.0%) were divorced or separated. Their ages ranged from 17 to 54, with a median of 21.6 years.

Subjects were recruited by their respective commands according to their availability for participation in the study. Together, they represented a wide range of scientific, technical, clerical, and labor specialities. None was directly engaged in a combat-related position.

Procedure

Subjects were convened in classroom settings in groups of 50 to 55. The two versions of the instruments concerning subordinates were randomly distributed to equal numbers of male and female personnel at the higher enlisted paygrades ($\underline{M} = 4.68$), and the two versions concerning co-workers were randomly distributed to equal numbers of males and females at the lower paygrades ($\underline{M} = 2.25$).

Subjects were first given general instructions on completing the ten demographic items preceding the body of the instruments, then asked to complete the contingency statements. All questions were referred to the monitor.

Subjects were allotted one half-hour to complete the task. All subjects finished in this length of time.

Results

Prior to testing the study hypotheses, masculinity and femininity approval scores were derived by averaging the data from the masculine and feminine items, respectively. These scores were analyzed by sex of respondent, by sex of worker (forms 1 and 3 vs. 2 and 4), by status of worker (forms 1 and 2 vs. 3 and 4), and by sex and status of worker (forms 1, 2, 3, and 4).

A three-way analysis of variance on the masculinity approval scores showed no significance according to sex of respondent, \underline{F} (1, 208) = 2.88, \underline{p} >.05, sex of worker, \underline{F} (1, 208) = 2.64, \underline{p} >.05, or status of

worker, \underline{F} (1, 208) = .112, \underline{p} >.05. An identical analysis on the femininity approval scores also yielded no significance by sex of worker, \underline{F} (1, 208) = .468, \underline{p} >.05. However, it did reveal significance by sex of respondent, \underline{F} (1, 208) = 13.284, \underline{p} <.001, and by status of worker, \underline{F} (1, 208) = 4.74, \underline{p} <.05. The interaction between these two variables also was significant, \underline{F} (1, 208) = 4.103, \underline{p} <.05.

Table 2 provides the means and probabilities for these comparisons.

Insert Table 2 about here

Correlations between the masculinity and femininity approval scores and status or sex of worker showed a small but significant positive correlation between the femininity approval score and co-worker status, $\underline{r} = .14$, $\underline{p} < .05$. A correlated \underline{t} test between the masculinity and femininity approval scores yielded highly significant differences, \underline{t} (215) = 10.16, $\underline{p} < .001$, $\underline{M} = 2.80$ for masculinity vs. 3.18 for femininity.

Table 3 indicates the hierarchy of mean values for the four forms on masculinity and femininity approval scores; the smaller the number, the greater the degree of encouragement or approval. None of the means for either type of score are significantly different.

Insert Table 3 about here

In the last stage of the analysis, individual responses to the four forms of the questionnaire were classified according to the type of shaping situation they formed (ME, MD, FE, or FD). The results are shown in Table 4. Remaining percentages represent neutral responses (4 on the

7-point scale), which were eliminated from the classification process.

Insert Table 4 about here

Discussion

The preceding results clearly fail to support the two hypotheses of the study--first, that working men are more likely than working women to receive encouraging responses to masculine behaviors, and second, that women are more likely than men to receive encouraging responses to feminine behaviors. No differences were found in the masculinity and femininity approval scores for male and female workers (see Table 2), nor were the individual comparisons between male and female subordinates and co-workers significant (see Table 3). Instead, contrary to expectation, there was a slight tendency in the data for females to be more frequently reinforced for masculine behaviors, and for males to be more frequently reinforced for feminine behaviors (see Table 4). This points to a small inclination, evident among both peers and superiors, to reward a given behavior more strongly if it is cross-sex.

This trend is consistent with studies showing that people who perform well in spite of a handicap—in this case, their biological sex—will be over-rewarded for their actions (Leventhal & Michaels, 1971; Taynor & Deaux, 1973). If superiors and peers do not expect to observe cross—sex behavior, it follows that they might be predisposed to reward it—provided, of course, that they value both masculinity and femininity.

That indeed they do is corroborated by the masculinity and femininity approval rates, which are generally high (see Table 4). However, in

keeping with our previous finding that masculinity is more adaptive in the workplace than femininity (Hinsdale & Johnson, 1978b), masculine behaviors were more strongly encouraged than were feminine behaviors, $\underline{\mathbf{M}} = 2.80 \text{ vs. } 3.18, \ \mathbf{p} < .001$. Thus, superiors and peers do more than simply pay lip service to the concept of the masculine androgyn—they actively reward masculine and feminine behavior in proportions consistent with this personality type.

This seems to be especially true where co-workers are concerned. Co-workers were significantly more likely than subordinates to receive encouraging responses to feminine behaviors, but no less likely to receive encouraging responses to masculine behaviors (see Table 2). Substantiating this finding was the small but significant correlation found between the femininity approval score and co-worker status, $\underline{r} = .14$, $\underline{p} < .05$.

Another subtle trend in the data suggests that opposite sex workers may be responsible for encouraging cross-sex characteristics. As shown in Table 2, female respondents were significantly more likely to encourage feminine behaviors, and males showed a tendency approaching significance to more strongly encourage masculine behaviors. Thus, in these data we see a vested interest phenomenon which may work to the benefit of both sexes in producing a mutual exchange of cross-sex competencies.

At this point, it deserves mention that the results of this study do support the assertion that there is a small gap between belief and behavior. However, instead of revealing a gap between nonsexist beliefs and sexist behaviors, these data suggest that behavior in work groups is even less sexist than the minimal biases in our prior research led us to anticipate. For example, in the attitudinal realm we have noted that the masculine female is valued less by peers than by superiors (Hinsdale & Johnson, 1978b). In these data, however, females are more likely to receive approval for masculine behavior by peers than by superiors, and more likely than males to receive approval for masculine behaviors in general (see Table 4). In this study, then, the gap between belief and behavior moves toward egalitarianism in behavior; the data reveal a bias not against, but in favor of cross-sex behavior. Apparently, the need to encourage expedient and adaptive behaviors in subordinates and co-workers takes precedence over any sexist beliefs work group members may hold. As a result, many of the prejudicial findings in our earlier research seem neutralized.

From this study it may be concluded that treatment discrimination is not, as so often is contended, a broadly based, consistent, day-to-day occurrence. Patterns of approval for stereotypic behaviors simply do not vary by sex, except perhaps in a counterintuitive direction. These findings do not mean that treatment discrimination is nonexistent; nor do they lessen its impact when it does occur. However, they do suggest that treatment discrimination is limited to isolated situations, and that beyond these situations, the sexes may pursue freedom from strict sex roles in the working world without fearing negative consequences.

In conjunction with our previous findings, the data from this study are most noteworthy in that they add increasing momentum to the already remarkable degree of consistency with which an organization—in this

case, the Navy--is able to shape its members. In our cumulative studies, we have seen the masculine androgyn emerge repeatedly. It is a widely held ideal; it is associated with success, adjustment, and advancement; it is reflected in the expectations which work group members believe others have of them; and it is mirrored in workers' self-concepts.

Finally, in this study, the masculine androgyn appears as the blueprint against which superiors and peers shape the behavior of their immediate subordinates and co-workers. While this kind of "cognitive consistency" in beliefs, values, and behaviors has been theorized to be a function of individual psychology (Festinger, 1957; Korman, 1970; Sampson, 1963), to our knowledge, it has not been studied as a part of the psychostructure of organizations. Further research is needed to determine the extent to which this internal consistency is evident across organizations.

Reference Notes

- 1. Hinsdale, K. Working women and the cycle of defeat: A theoretical model. Albion, Mich.: Validated Instruction Associates, Inc., October, 1976.
- 2. Hinsdale, K., Cook, J., & Johnson, J.D. The new Navy woman needs assessment interviews: A preliminary report. Albion,
 Mich.: Validated Instruction Associates, Inc., January, 1978.
- 3. Durning, K.P., & Mumford, S.J. <u>Differential perceptions of organizational climate held by Navy enlisted women and men</u>
 (NPRDC TR 76TQ-43). San Diego, Calif.: Navy Personnel
 Research and Development Center, August, 1976.
- 4. Gadreau, P. <u>Bem Sex-Role Inventory validation study</u>. Paper presented at the meeting of the American Psychological Association, Chicago, Illinois, 1975.

References

- Bartol, K.M. & Butterfield, D.A. Sex effects in evaluating leaders.

 Journal of Applied Psychology, 1976, 61, 446-454.
- Bem, S.L. & Bem, D.J. Homogenizing the American woman: The power of an unconscious ideology. In D. J. Bem, Beliefs, Attitudes and Human Affairs, Belmont, Calif.: Brooks/Cole, 1970.
- Bond, J.R., and Vinacks, W. E. Coalitions in mixed-sex triads. Sociometry, 1961, 24, 61-75.
- Condry, J. & Dyer, S. Fear of success: Attribution of cause to the victim. <u>Journal of Social Issues</u>, 1976, 32 (3), 63-83.
- Darley, S. Big-time careers for the little woman: A dual-role dilemma.

 <u>Journal of Social Issues</u>, 1976, 32 (3), 85-98.
- Deaux, K. The behavior of women and men. Monterey, Calif.: Brooks/Cole, 1976. 36-44.
- Festinger, L. A theory of cognitive dissonance. Evanston, Ill.: Row, Peterson, & Co., 1957.
- Garland, H. & Price, K.H. Attitudes toward women in management and attributions for their success and failure in a managerial position.

 <u>Journal of Applied Pscyhology</u>, 1977, 62 (1), 29-33.
- Hagen, R. & Kahn, A. Discrimination against competent women. <u>Journal of</u>
 Applied Social Psychology, 1975, 5 (4), 362-376.
- Hinsdale, K. & Johnson, J.D. <u>Masculinity</u>, <u>femininity</u>, <u>and the workplace</u>:

 <u>A study of stereotypes</u>. Albion, Mich.: Validated Instruction

 Associates, Inc., August, 1978. (NTIS No. AD-A059731) (a)

- Hinsdale, K. & Johnson, J.D. <u>Masculinity</u>, <u>femininity</u>, <u>and androgyny</u>;

 <u>What really works at work</u>? Albion, Mich.: Validated Instruction

 Associates, Inc., September, 1978. (NTIS No. AD-A061177) (b)
- Hinsdale, K. & Johnson, J.D. Stereotypes of working women: Fact or fiction? Albion, Mich.: Validated Instruction Associates, Inc., November, 1978. (NTIS No. AD-) (c)
- Hinsdale, K. & Johnson, J.D. <u>Women in work groups</u>: <u>Misperceptions and missed expectations</u>. Albion, Mich.: Validated Instruction Associates, Inc., November, 1978. (NTIS No. AD-) (d)
- Komarovsky, M. Cultural contradictions and sex roles: The masculine case. American Journal of Sociology, 1973, 78, 873-884.
- Korman, A. Toward a hypothesis of work behavior. <u>Journal of Applied</u>

 Psychology, 1970, 54, 31-41.
- Leventhal, G. & Michaels, J. Locus of cause and equity motivation as determinants of reward allocation. <u>Journal of Personality and Social Psychology</u>, 1971, <u>17</u>, 229-235.
- Mason, K., Czajka, J., & Arber, S. Change in U.S. women's sex-role attitudes, 1966-1974. New Research on Women & Sex Roles. The University of Michigan Center for Continuing Education of Women, Ann Arbor. Mich., 1976.
- Miller, J., Labovitz, S., & Fry, L. Inequities in the organizational experiences of women and men. Social Forces, 1975, 54 (2), 365-381.
- O'Leary, V.E. Toward understanding women. Monterey, Calif.: Brooks/Cole, 1977.
- O'Leary, V.E. & Depner, C.E. Changing sex-role stereotypes. <u>Journal of Social Psychology</u>, 1975, <u>95</u>, 139-140.

- Orth, C.D. & Jacobs, F. Women in management: Pattern for change. <u>Harvard</u>

 <u>Business</u> <u>Review</u>, 1971, <u>49</u>, 139-147.
- Petty, M. & Lee, G. Moderating effects of sex of supervisor and subordinate on relationships between supervisor behavior and subordinate satisfaction.

 <u>Journal of Applied Psychology</u>, 1975, 60, 624-628.
- Rosen, B. & Jerdee, T.H. Effects of employee's threatening versus pleading appeals on managerial evaluations of grievances. <u>Journal of Applied Psychology</u>, 1975, 60, 442-445.
- Rosen, B. & Jerdee, T.H. Influence of sex role stereotypes on personnel decisions. <u>Journal of Applied Psychology</u>, 1974, 59, 9-14.
- Rousell, C. Relationship of sex of department head to department climate.

 Administrative Science Quarterly, 1974, 19, 211-220.
- Sampson, E. Status congruence and cognitive consistency. Sociometry, 1963, 26, 146-162.
- Spence, J. & Helmreich, R. Who likes competent women? Competence, sexrole congruence of interests, and subjects' attitudes toward women
 as determinants of interpersonal attraction. <u>Journal of Applied Social</u>
 Psychology, 1972, 2, 197-213.
- Stogdill, R. Handbook of leadership: A survey of theory and research.

 New York: Free Press, 1974.
- Tangri, S.S. Determinants of occupational role innovation among college women. <u>Journal of Social Issues</u>, 1972, 28 (2), 177-199.
- Tavris, C. Men and women report their views on masculinity. <u>Psychology</u>

 <u>Today</u>, January, 1977, 35-38, 42, 82.
- Tavris, C. Who likes women's liberation--and why: The case of the unliberated liberals. <u>Journal of Social Issues</u>, 1973, 29 (4), 175-198.

- Taynor, J. & Deaux, K. When women are more deserving than men: Equity, attribution, and perceived sex differences. <u>Journal of Personality</u> and <u>Social Psychology</u>, 1973, 28, 360-367.
- Terborg, J.R. & Ilgen, D.R. A theoretical approach to sex discrimination in traditionally masculine occupations. <u>Organizational Behavior and Human Performance</u>, 1975, <u>13</u>, 352-376.
- Triandis, H. & Davis, E. Race and belief as determinants of behavioral intentions. <u>Journal of Personality and Social Psychology</u>, 1965, 2, 715-725.
- U. S. Department of Labor. 1975 Handbook on Women Workers. Employment Standards Administration. Women's Bureau, 1975.
- Waters, C.W., Waters, I.K., & Pincus, S. Factor analysis of masculine and feminine sex-types items from the Bem Sex-Role Inventory.

 Psychological Reports, 1977, 40, 567-570.
- Weitz, S. <u>Sex roles: Biological, psychological, and social foundations.</u>

 New York: Oxford University Press, 1972.

Table 1

Representative Feminine and Masculine Behaviors Used in Contingency

Statements

Behaviors	Associated BSRI Traits
Masculine:	Library seats and
Wrote a newspaper article expressing his/her	
own opinion about the Navy	Defends own beliefs
Maintained his/her own opinion until proven	
wrong beyond a doubt	Assertive
Resisted group pressure to socialize during	
work hours	Strong personality
Volunteered to perform an important task	ng Librarian
without being entirely sure he/she had	
the necessary skills and knowledge	Willing to take risks
Organized and implemented a better work	
schedule without being asked to do so	Acts like a leader
Used the chain of command when he/she	
believed his/her superior was being	
unfair	Willing to take a stand
Feminine:	
Agreed to do another person's work even	
though he/she didn't think it was fair	Yielding
Hugged a co-worker who had just received an	
award	Affectionate

Patterns of Approval in Work Groups

Table 1 (Contd.)

Representative Feminine and Masculine Behaviors Used in Contingency Statements

Behaviors	Associated BSRI Traits
Feminine: (Contd.)	1807.040.09
Readily cooperated with someone who	
complimented him/her	Flatterable
Observed a co-worker having trouble with	
his/her work and helped him/her out	Sensitive to the needs
	of others
Took time to listen to a co-worker with	era: d amon
personal problems	Compassionate

Patterns of Approval in Work Groups 24

Table 2
Masculinity and Femininity Approval Scores by Sex
of Respondent, Sex of Worker, and Status of Worker

Variable	Masculinity Approval Score	P	Femininity Approval Score	P
Sex of	15800 F-10 0.10		7°,5 1 (168)53345	1 - REpart 3
Respondent				
Male	2.74	.091	3.30	<.000
Female	2.86		3.04	
Sex of			C	
Worker				
Male	2.85	.106	3.16	.495
Female	2.74		3.20	
Status of				
Worker				
Subordinate,	2.81	.738	3.25	.031
Co-Worker	2.79		3.10	

Patterns of Approval in Work Groups 25

Table 3

Hierarchy of Masculinity and Femininity Scores

by Sex and Status of Worker

Masculinity Approval	Score	Femininity Approval	Score
Female Co-Worker	2.727	Male Co-Worker	3.088
Female Subordinate	2.759	Female Co-Worker	3.108
Male Co-Worker	2.846	Male Subordinate	3.222
Male Subordinate	2.858	Female Subordinate	3.288

Table 4
Frequency of Four Types of Shaping Situations
by Sex and Status of Worker

	orner.	2			S. C. Marie	
	Subordinate Co-Worker	Co-Vorker	Both	Subordinate Co-Worker	Co-Vorker	Both
Masculinity						
* * curagement (ME)	4.79	63.8	65.7	0.69	68.1	9.89
× ulscouragement (M)	22.5	19.5	21.12	21.1	18.3	19.7
baininity						
& Encouragement (FE)	57.3	. 57.3	57.3	53.0	57.7	55.3
# Discouragement (FD)	24.8	20.3	22.6	24.3	21.9	23.2

Navy

Office of Naval Research (6) (Code 452) 800 N. Quincy St. Arlington, Virginia 22217

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Accessions Division
ATTN: DDC-TC
Cameron Station
Alexandria, Virginia 22314

Psychologist
ONR Branch Office
Bldg. 114, Section D
666 Summer St.
Boston, Massachusetts 02210

Commanding Officer (6)
Naval Research Laboratory
Code 2627
Washington, D.C. 20375

Science and Technology Division Library of Congress Washington, D.C. 20540

Psychologist
ONR Branch Office
536 S. Clark St.
Chicago, Illinois 60605

Psychologist
ONR Branch Office
1030 E. Green St.
Pasadena, California 91106

Bureau of Naval Personnel Scientific Advisor (Pers Or) Washington, D.C. 20370

Bureau of Naval Personnel (Pers 6)
Assistant Chief of Naval Personnel
for Human Resource Management
Washington, D.C. 20370

Bureau of Naval Personnel (Pers 6a3) Human Resource Management Washington, D.C. 20370

Superintendent (Code 1424) Naval Postgraduate School Monterey, California 93940 Training Officer Human Resource Management Center Naval Training Center (Code 9000) San Diego, California 92133

Scientific Director Naval Health Research Center San Diego, California 92152

Navy Personnel R&D Center (5) San Diego, California 92152

Lt. Rebecca G. Vinson, USN
Rating Assignment Officer
Bureau of Naval Personnel (Pers 5151)
Washington, D.C. 20370

Chief of Naval Technical Training Code 0161 NAS Memphis (75) Millington, Tennessee 38054

Human Resource Management Center Box 23 FPO New York 09510

Human Resource Management Detachment Naples Box 3 FPO New York 09521

Human Resource Management Detachment Rota Box 41 FPO New York 09540

Human Resource Management Center Norfolk 5621-23 Tidewater Dr. Norfolk, Virginia 23511

Human Resource Management Center Building 304 Naval Training Center San Diego, California 92133

Office of Naval Research (Code 200) Arlington, Virginia 22217

ACOS Research & Program Development Chief of Naval Education & Training (N-5) Naval Air Station Pensacola, Florida 32508 Human Resource Management School Naval Air Station Memphis (96) Millington, Tennessee 38054

Bureau of Naval Personnel (Pers 65) Washington, D.C. 20370

Director, Human Resource Training Dept.
Naval Amphibious School
Little Creek
Naval Amphibious Base
Norfolk, Virginia 23521

Naval Material Command
Management Training Center (NMAT 09M32)
Room 150 Jefferson Plaza, Bldg. #2
1421 Jefferson Davis Highway
Arlington, Virginia 20360

Commanding Officer
HRMC Washington
1300 Wilson Blvd.
Arlington, Virginia 22209

Head, Research & Analysis Branch Navy Recruiting Command (Code 434) 801 N. Randolph St., Room 8001 Arlington, Virginia 22203

Dr. William S. Maynard U.S. Naval Academy Department of Leadership & Law Annapolis, Maryland 21402

CAPT Donald F. Parker, USN Management Department U.S. Naval War College Newport, Rhode Island 02840

Dr. Myron M. Zajkowski Senior Scientist Naval Training Analysis and Evaluation Group Orlando, Florida 32813

Superintendent Naval Postgraduate School Monterey, California 93940

Army

Director (3)
Program Management
ARPA, Room 813
1400 Wilson Blvd.
Arlington, Virginia 22209

Director Cybernetics Technology Office ARPA, Room 625 1400 Wilson Blvd. Arlington, Virginia 22209

Office of the Deputy Chief of Staff for Personnel, Research Office ATTN: DAPE-PBR Washington, D.C. 20310

Army Research Institute (2) 5001 Eisenhower Ave. Alexandria, Virginia 22333

Air Force

AFOSR/NL (Dr. Fregly)
Building 410
Bolling AFB
Washington, D.C. 20332

Military Assistant for Human Resources OAD (E&LS) ODDR&E Pentagon 3D129 Washington, D.C. 20301

Marine Corps

Dr. A.L. Slafkosky Code RD-1 HQ U.S. Marine Corps Washington, D.C. 20380

Commandant of the Marine Corps (Code MPI-20) Washington, D.C. 20380

Coast Guard

Joseph J. Cowan Chief, Psychological Research Branch U.S. Coast Guard (G-P-1/2/62) Washington, D.C. 20590

Principal Investigators

Dr. Earl A. Alluisi
Performance Assessment Laboratory
Old Dominion University
Norfolk, Virginia 23508

Dr. James A. Bayton Department of Psychology Howard University Washington, D.C. 20001 Dr. H. Russell Bernard
Department of Sociology and
Anthropology
West Virginia University
Morgantown, West Virginia 26506

Dr. Arthur Blaiwes Human Factors Laboratory Code N-71 Naval Training Equipment Center Orlando, Florida 32813

Dr. David G. Bowers
Institute for Social Research
P. O. Box 1248
University of Michigan
Ann Arbor, Michigan 48106

Dr. Norman G. Dinges
The Institute of Behavioral Sciences
250 Ward Ave - Suite 226
Honolulu, Hawaii 96814

Dr. J. Richard Hackman School of Organization and Management 56 Hillhouse Ave. Yale University New Haven, Connecticut 06520

Dr. Asa G. Hilliard, Jr.
The Urban Institute for Human
Services, Inc.
P.O. Box 15068
San Francisco, California 94115

Dr. Edwin Hollander
Department of Psychology
State University of New York at Buffalo
4230 Ridge Lea Rd.
Buffalo, New York 14226

Dr. Dorothy McBride Kipness University City Science Center 3624 Science Center Philadelphia Pennsylvania 19104

Dr. Faris Kirkland University City Science Center Center for Social Development 3624 Science Center Philadelphia, Pennsylvania 19104 Dr. Arthur L. Korotkin
Vice President and Director
Washington Office
Richard A. Gibboney Assoc., Inc.
10605 Concord St. Suite 203A
Kensington, Maryland 20795

Dr. Edward E. Lawler
Batelle Human Affairs Research Centers
4000 N.E., 41st St.
P.O. Box 5395
Seattle, Washington 98105

Dr. Morgan W. McCall, Jr. Center for Creative Leadership P.O. Box P-1 Greensboro, North Carolina 27402

Dr. Peter G. Nordlie Human Sciences Research, Inc. 7710 Old Springhouse Rd. McLean, Virginia 22101

Dr. Robert D. O'Connor Behavior Design, Inc. 11212 N. May Ave. Suite 111 Oklahoma City, Oklahoma 73120

Dr. Manuel Ramirez
Systems and Evaluations
232 Swanton Blvd.
Santa Cruz, California 95060

Dr. H. Wallace Sinaiko
Program Director
Manpower Research & Advisory Services
Smithsonian Institution
801 N. Pitt St. Suite 120
Alexandria, Virginia 22314

Mrs. Alice I. Snyder Anthropological Inquiry Services 1749 Navaja Lane El Cajon, California 92020

Dr. Richard Steers
Graduate School of Management and
Business
University of Oregon
Eugene, Oregon 97403

Dr. Philip G. Zimbardo Department of Psychology Stanford University Stanford, California 94305

Others

Dr. Sandra Bem
Department of Psychology
Stanford University
Stanford, CA 94305

Dr. Stephanie Bennett Dean, Westhampton College University of Richmond Richmond, Virginia 23173

I.K. and Donald M. Broverman Worcester State Hospital Worcester, Massachusetts 01604

Canadian Defense Liaison Staff, Washington 2450 Massachusetts Avenue, N.W. Washington, D.C. 20008 ATTN: CDRD

Ms. Mary Cole
Psychological Services of Pittsburgh
100 5th Ave.
Pittsburgh, Pennsylvania 15229

Carolyn M. Elliott, Director Center for Research on Women in Higher Education and the Professions Wellesley College, Cheever House 828 Washington St. Wellesley, Massachusetts 02181

Allison Gardner
Project on Human Sexual Development
300 Longfellow Hall
13 Appian Way
Cambridge, Massachusetts 01604

HumRRO (ATTN: Library) 300 North Washington Street Alexandria, Virginia 22314

Dr. Virginia O'Leary Department of Psychology Oakland University Rochester, Michigan 48063

Dr. Virginia E. Schein
Personnel Research
Metropolitan Life Insurance Co.
1 Madison Ave.
New York, New York 10010

Dr. Eugene F. Stone
Assistant Professor of Administrative
Sciences
Krannert Graduate School
Purdue University
West Lafayette, Indiana 47907

James R. Terborg
Department of Psychology
University of Illinois
Champaign, Illinois 61820

Dr. Donald G. Gardner
Krannert Graduate School of Management
Krannert Building
Purdue University
West Lafayette, IN 47907